Universal Grammar: Principles & Parameters; Language faculty.

1. Introduction

Grammar is traditionally subdivided into two different but interrelated areas of study **morphology** and **syntax**.

Morphology is the study of how words are formed out of smaller units (called **morphemes**), and so addresses questions such as 'What are the component morphemes of words, and what is the nature of the morphological operations by which they are combined together to form the overall words?'

Syntax is the study of the way in which phrases and sentences are structured out of words, and so addresses questions like 'What is the structure of a sentence like *What's the president doing?* and what is the nature of the grammatical operations by which its component words are combined together to form the overall sentence structure?

In describing syntax there are two main approaches: traditional grammar and generative grammar.

2. Traditional grammar: categories and functions

Within traditional grammar, the syntax of a language is described in terms of a taxonomy (i.e. classificatory list) of the range of different types of syntactic structures found in the language.

The central assumption underpinning syntactic analysis in traditional grammar is that phrases and sentences are built up of a series of **constituents** (i.e. syntactic units), each of which belongs to a specific **grammatical category** and serves a specific **grammatical function**.

The task in analysing the syntactic structure of any given type of sentence is to identify each of the constituents in the sentence, and to say what category each constituent belongs to and what function it serves.

For example, in relation to the syntax of a simple sentence like:

(1) Students protested

It would **traditionally** be said that the sentence consists of two constituents (the word *students* and the word *protested*), that each of these constituents belongs to a specific grammatical category (*students* being a plural noun and *protested* a past tense verb) and that each serves a specific grammatical function (*students* being the subject of the sentence and *protested* being the predicate).

The overall sentence *Students protested* has the categorial status of a clause which is finite in nature (by virtue of denoting an event taking place at a specific time), and has the semantic

function of expressing a proposition which is declarative in force (in that it is used to make a statement rather than e.g. ask a question).

In traditional grammar, words are assigned to grammatical categories (called **parts of speech**) on the basis of their **semantic** properties (i.e. meaning), **morphological** properties (i.e. the range of different forms they have) and **syntactic** properties (i.e. word-order properties relating to the positions they can occupy within sentences).

More about parts of speech in the next lecture.

3. Generative grammar

The underlying thesis of generative grammar is that sentences are generated by a subconscious set of procedures (like computer programs). These procedures are part of our minds (or of our cognitive abilities). The goal of syntactic theory is to model these procedures. In other words, we are trying to figure out what we subconsciously know about the syntax of our language.

In contrast to the **taxonomic** approach adopted in traditional grammar, generative grammar takes a **cognitive** approach to the study of grammar. The goal of the linguist is to determine what it is that native speakers *know* about their native language which enables them to speak and understand the language, and how this linguistic knowledge might be represented in the mind.

In studying language, we are studying a specific kind of cognition (i.e., human knowledge). However, it is important to emphasise that this grammatical knowledge of how to form and interpret expressions in your native language is **tacit** (i.e. subconscious) rather than **explicit** (i.e. conscious). Usually, native speakers (not trained in linguistics) cannot explain the grammar of their language. They have tacit **competence** of their language.

Competence is the speaker-hearer's knowledge of his language, while **performance** is the actual use of language in concrete situations.

Native **competence** is perfect, but, very often, **performance** is an imperfect reflection of competence: we all make occasional slips of the tongue, or occasionally misinterpret something which someone else says to us. However, this doesn't mean that we don't know our native language or that we don't have competence in it.

3.1 Universal grammar

Generative syntax's ultimate goal is to devise a theory of **Universal Grammar/UG** which generalises from the grammars of particular competence to the grammars of all possible natural (i.e. human) language. UG is the theory of human language competence that identifies the competence that are humanly accessible under normal conditions.

Universal suggests that it is found in all languages. Grammar suggests that it is a set of rules and constraints.

3.2 The internal organisation of the grammar of a language

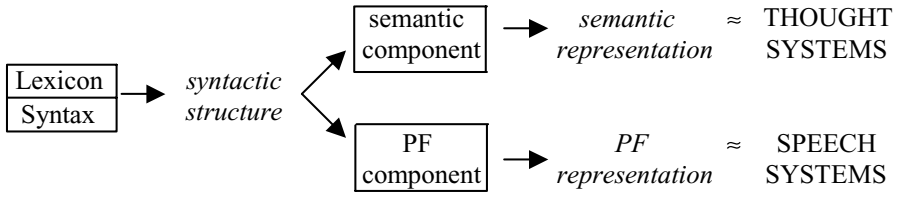
How does our grammar work?

1. One component of a grammar is a **lexicon** (= dictionary = list of all the **lexical items**/words in the language and their linguistic properties), and in forming a given sentence out of a set of words, we first have to take the relevant words out of the lexicon.

2. Our chosen words are then combined together by a series of syntactic computations in the **syntax**, thereby forming a **syntactic structure**.

3. This syntactic structure serves as input into two other components of the grammar. One is the **semantic component** which **maps** (i.e. 'converts') the syntactic structure into a corresponding **semantic representation** (i.e. into a representation of linguistic aspects of its meaning): the other is a **PF component**, so called because it maps the syntactic structure into a **PF representation** (i.e. a representation of its **Phonetic Form**, giving us a phonetic **spellout** for each word, telling us how it is pronounced).

4.The semantic representation interfaces with systems of thought, and the PF representation with systems of speech.



3.3 The language faculty

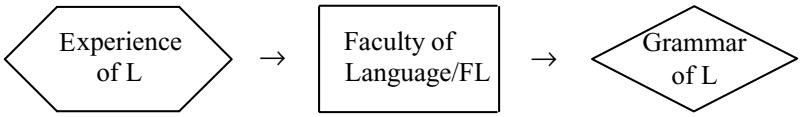
Part of UG is developing a **theory of language acquisition**.

Children, regardless of the environment they grow, and regardless of their parent's level of education, grow to speak their respective language natively with a very similar level of linguistic competence.

3.3.1 Language faculty

The most plausible explanation for the uniformity and rapidity of first language acquisition is to posit that the course of acquisition is determined by a biologically endowed innate **Faculty of Language/FL** within the brain, which provides children with a genetically transmitted algorithm (i.e, set of procedures) for developing a grammar, on the basis of their linguistic experience (i.e, on the basis of the speech input they receive).

(1)



The claim that the course of language acquisition is determined by an innate language faculty is known popularly as the **innateness hypothesis**. The ability to speak and acquire languages is unique to human beings, and that natural languages incorporate principles which are also unique to humans, and which reflect the nature of the human mind.

3.4 Principles and parameters of UG

The language faculty incorporates a set of universal principles which guide the child in acquiring a grammar. However, it clearly cannot be the case that all aspects of the grammar of languages are universal; if this were so, all natural languages would have the same grammar and there would be no **grammatical learning** involved in language acquisition (i.e. no need for children to learn anything about the grammar of the language they are acquiring), only **lexical learning** (learning the lexical items/words in the language and their idiosyncratic linguistic properties, e.g. whether a given item has an irregular plural or past tense form).

But although there are universal principles which determine the broad outlines of the grammar of natural languages, there also seem to be language-particular aspects of grammar which children have to learn as part of the task of acquiring their native language. Thus, language acquisition involves not only lexical learning but also some grammatical learning.

One aspect of grammar which appears to be **parametrised** (based on parameter, which specify the options for grammatical variation between languages) relates to word order, in that different types of language have different word orders in specific types of construction.

Some languages such as Arabic allows different positions of the subject, but others do not.

(2)

a. Arabic	**b.** English
akal Musa altuffaha	Musa ate the apple
Musa akal altuffaha	*Ate Musa the apple

Another different parameter is the head of the phrase. English is a **head-first** language, whereas Korean is a **head-last** language. The differences between the two languages can be illustrated by comparing the English examples in (3) below with their Korean counterparts in (4).

	English	**Korean**
(3)	(a) Close the door	(b) Desire for change
(4)	(a) Muneul dadara door close	(b) byunhwa-edaehan galmang change-for desire

In the English verb phrase *close the door* in (3a), the head verb *close* immediately precedes its complement *the door*. Likewise, in the English noun phrase *desire for change* in (3b), the head noun *desire* immediately precedes its complement *for change*.

In Korean, by contrast, *muneul dadara* (literally '*door close'*) in (4a), the head verb *dadara* 'close' immediately follows its complement *muneul* 'door'.

Likewise, *byunhwa-edaehan galmang* (literally 'change-for desire') in (4b) the head noun *galmang* 'desire' immediately follows its complement *byunhwa-edaehan* 'change-for'.

In addition, in Korean a prepositional phrase head preposition *edaehan* 'for/about' immediately follows its complement *byunhwa* 'change'. So, that *edaehan* might more appropriately be called a **postposition**.

This is unlike English where head is first, *for change*.

The relevant parameter is termed the **Head Position Parameter**. This parameter is different in different languages.

3.5 Parameter setting

Children have to learn whether the native language they are acquiring is a head-first language or not . . . and so on for all the other parameters along which languages vary.

Of course, children also face the formidable task of **lexical learning** – i.e. building up their vocabulary in the relevant language, learning what words mean and what range of forms they have (e.g. whether they are regular or irregular in respect of their morphology), what kinds of structures they can be used in and so on.

On this view, the acquisition of grammar involves the twin tasks of **lexical learning** and **structural learning** (with the latter involving **parameter-setting**).

The theory outlined here is known as **Principles-and-Parameters Theory/PPT.**